

**APPENDIX A**

1. (Currently Amended) A system for enabling distribution of service functionality across network elements in a network comprising:

a) a service logic execution engine associated with each node in the network for enabling service logic to execute on ~~one or more nodes~~ each node in the network, each service logic execution engine being in communication with service logic execution engines associated with other nodes;

b) a determination means for determining a preferred distribution scheme wherein the distribution scheme involves placement of nodes based on at least one of the group of location of associated physical resources, minimization of inter-node interactions and natural couplings of associated service software; and

c) a distribution means for distributing service functionality to nodes in accordance with the distribution scheme;

wherein the service logic execution engine is informed of one or more locations to which one or more application components are distributed.

2. (Original) The system of claim 1 wherein the distribution scheme involves executing where one or more

associated physical resources are located.

3. (Original) The system of claim 1 wherein the distribution scheme comprises a selection function to determine one or more nodes to be invoked.

4. (Original) The system of claim 3 wherein the selection function comprises executing an algorithm.

5. (Canceled)

6. (Original) The system of claim 1 wherein the distribution scheme involves making efficient use of network resources.

7. (Canceled)

8. (Original) The system of claim 1 wherein one or more service logic execution engines execute on one or more participating nodes in the network.

9. (Previously Presented) The system of claim 1 wherein multiple parallel servers are configured to execute a service wherein the throughput is scalable to a desired level.

10. **(Currently Amended)** A method for enabling distribution of service functionality across network elements in a network comprising the steps of:

a) enabling service logic to execute on one or more nodes in the network by associating a service logic execution engine with each node in the network, each of such service logic

execution engine being in communication with the other service  
logic execution engines;

b) determining a preferred distribution scheme wherein the distribution scheme involves placement of nodes based on at least one of the group of location of associated physical resources, minimization of inter-node interactions and natural couplings of associated service software; and

c) distributing service functionality to nodes in accordance with the distribution scheme.

11. (Original) The method of claim 10 wherein the distribution scheme involves executing where one or more associated physical resources are located.

12. (Original) The method of claim 10 wherein the distribution scheme comprises a selection function to determine one or more nodes to be invoked.

13. (Original) The method of claim 12 wherein the selection function comprises executing an algorithm.

14. (Canceled)

15. (Original) The method of claim 10 wherein the distribution scheme involves making efficient use of network resources.

16. (Original) The method of claim 10 wherein one or more service logic execution engines execute on one or more

participating nodes in the network.

17. (Previously Presented) The method of claim 10 wherein multiple parallel servers are configured to execute a service wherein the throughput is scalable to a desired level.

18. (**Currently Amended**) A processor readable medium comprising processor readable code for enabling distribution of service functionality across network elements in a network comprising:

a) execution code that causes a processor to ~~enabling~~ enable service logic to execute on one or more nodes in the network, each node in the network having a service logic execution engine that is in communication with the service logic execution engines of other nodes;

b) determination code that causes the processor to determine a preferred distribution scheme wherein the distribution scheme involves placement of nodes based on at least one of the group of location of associated physical resources, minimization of inter-node interactions and natural couplings of associated service software; and

c) distribution code that causes the processor to distribute service functionality to nodes in accordance with the distribution scheme.

19. (Original) The processor readable medium of claim

18 wherein the distribution scheme involves executing where one or more associated physical resources are located.

20. (Original) The processor readable medium of claim 18 wherein the distribution scheme comprises a selection function to determine one or more nodes to be invoked.

21. (Original) The processor readable medium of claim 20 wherein the selection function comprises executing an algorithm.

22. (Canceled)

23. (Original) The processor readable medium of claim 18 wherein the distribution scheme involves making efficient use of network resources.

24. (Canceled)

25. (Original) The processor readable medium of claim 18 wherein one or more service logic execution engines execute on one or more participating nodes in the network.

26. (Previously Presented) The processor readable medium of claim 18 wherein multiple parallel servers are configured to execute a service wherein the throughput is scalable to a desired level.

27. (Previously Presented) The system of claim 1, wherein the service logic execution engine enables event passing between application components during execution.

28. (New) The system of claim 1, wherein the communication between service logic execution engines comprises communication regarding the distribution and processing of service functionality.

29. (New) The method of claim 10, wherein the communication between service logic execution engines comprises communication regarding the distribution and processing of service functionality.

30. (New) The processor readable medium of claim 18, wherein the communication between service logic execution engines comprises communication regarding the distribution and processing of service functionality.